



FORM PTO-1449

THIRD SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1708.0380000/MAC/MBTAPPLICATION NO.
09/403,269 (U.S. Nat'l
Phase of PCT/SE98/00703;
I.A. Filing Date: April 17,
1998)APPLICANT
Lindahl et al.U.S.C. § 371 Date: October
18, 1999

GROUP 1652

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

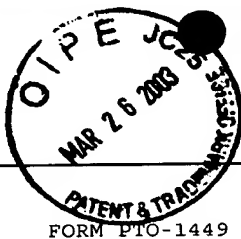
	AR		
DS	AS	5	Hagner-McWhirter, Å. et al., "Biosynthesis of heparin/heparin sulfate: kinetic studies of the glucuronyl C5-epimerase with N-sulfated derivatives of the Escherichia coli K5 capsular polysaccharide as substrates," Glycobiology 10:159-171, Oxford University Press (February 2000)
DS	AT	5	Hagner-McWhirter, Å. et al., "Biosynthesis of heparin/heparan sulphate: mechanism of epimerization of glucuronyl C-5," Biochem J. 347:69-75, London Portland Press On Behalf Of The Biochemical Society (April 2000)

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07/07/03

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	APPLICANT Lindhahl et al.	
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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

DIS	AR	6	Nagase, T. et al., "Prediction of the Coding Sequences of Unidentified Human Genes. XII. The Complete Sequences of 100 New cDNA Clones from Brain Which Code for Large Proteins in vitro," DNA Res. 5:355-364, Tokyo Kazusa DNA Research Institute and Universal Academy Press (1998)
DIS	AS	6	D-glucuronyl C5-epimerase (EC 5.1.3.-) amino acid sequence (mouse), Accession No. Q9EPS3, Database EBI [Online] (March 2001)
DIS	AT	6	D-glucuronyl C5-epimerase (EC 5.1.3.-) amino acid sequence (bovine), Accession No. 018756, Database EBI [Online] (January 1998)
EXAMINER	DIS		DATE CONSIDERED 07/27/03

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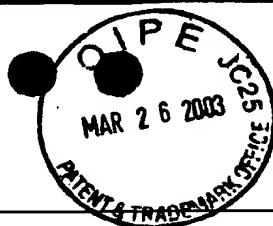
DS	AR	2	Database Biosis Biosciences Information Service, Database accession no. PREV200000122890, abstract for Hagner-McWhirter, A. et al., "Biosynthesis of heparin/heparan sulphate: Kinetic studies of the glucuronyl C5-epimerase with N-sulfated derivatives of the Escherichia coli K5 capsular polysaccharide as substrates," (February 2000)
DS	AS	2	D-glucuronyl C5-epimerase amino acid sequence (EC 5.1.3.-), Accession No. 094923, Database EBI [Online] (May 1999)
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
DS	AA1	5,939,289	8/17/1999	Ertesvåg et al.	435	72	10/8/1993
DS	AB1	6,372,477 B1	4/16/2002	Jørshoe et al.	435	233	5/27/1998
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DS	AL1	WO 98/48006 A1	10/29/1998	WIPO			Yes
							No
DS	AM1	WO 01/38507 A1	5/31/2001	Japan			Yes
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	AN						Yes
							No
	AO						Yes
							No
	AP						Yes
							No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

DS	AR	1	Kelley, L.A. et al., "Enhanced Genome Annotation Using Structural Profiles in the Program 3D-PSSM," J. Mol. Biol. 299:499-520, Academic Press (June 2000).
DS	AS	1	Li, J.-p. et al., "Biosynthesis of Heparin/Heparan Sulfate. cDNA Cloning and Expression of D-Glucuronyl C5-Epimerase from Bovine Lung," J. Biol. Chem. 272:28158-28163, The American Society for Biochemistry and Molecular Biology, Inc. (1997).
DS	AT	1	Malmström, A. et al., "Biosynthesis of Heparin. Partial Purification of the Uronosyl C-5 Epimerase," J. Biol. Chem. 255:3878-3883, American Society of Biochemistry and Molecular Biology Inc. (1980).

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	AL						Yes No
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	AN						Yes No
	AO						Yes No
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<i>BJS</i>	AR	2	Ron, D. et al., "Expression of Biologically Active Recombinant Keratinocyte Growth Factor. Structure/Function Analysis of Amino-Terminal Truncation Mutants," <i>J. Biol. Chem.</i> 268:2984-2988, American Society of Biochemistry Molecular Biology Inc. (1993).
<i>cited in IDS of Paper No. 4</i> <i>BJS</i>	AS	2	Salmivirta, M. et al., "Heparan sulfate: a piece of information," <i>FASEB J.</i> 10:1270-1279, Federation of American Societies for Experimental Biology (1996).
<i>BJS</i>	AT	2	NCBI Entrez, GenBank Report, Accession No. L08483, from Xue, F. et al. (1993).

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DIS	AR	3	NCBI Entrez, GenBank Report, Accession No. P46555, from Sulston, J. (1994).	✓
DIS	AS	3	NCBI Entrez, GenBank Report, Accession No. AF043700, from Wilson, R. et al. (1998).	✓
DIS	AT	3	NCBI Entrez, GenBank Report, Accession No. AAF36018, from The C. elegans Sequencing Consortium et al. (1998).	✓

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DS	AR	4	NCBI Entrez, GenBank Report, Accession No. AAF57373, from Adams, M.D. et al. (March 2000).	✓
DS	AS	4	Crawford, B.E. et al., "Cloning, Golgi Localization, and Enzyme Activity of the Full-length Heparin/Heparan Sulfate-Glucuronic Acid C5-epimerase", J. Biol. Chem. 276:21538-21543, The American Society for Biochemistry and Molecular Biology, Inc. (June 2001).	✓
DS	AT	4	Féthière, J. et al., "Crystal Structure of Chondroitin AC Lyase, a Representative of a family of Glycosaminoglycan Degrading Enzymes," J. Mol. Biol. 288:635-647, Academic Press (May 1999).	✓

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<i>DS</i>	AR	5	Dialog File 351, Accession No. 2001-381292/200140, Derwent WPI English language abstract for WO 01/38507 (May 31, 2001).
	AS		
	AT		

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